

THE LEISURE HOUR.

A FAMILY JOURNAL OF INSTRUCTION AND RECREATION.

No. 334.]

THURSDAY, MAY 20, 1858.

[PRICE 1d.]



MR. DALZELL AND HIS COMPANIONS RETIRING TO THE AGRA CEMETERY FOR CONFERENCE.

THE INDIAN NABOB:

OR, A HUNDRED YEARS AGO.

CHAPTER XL.—TIDINGS OF ALARM.

I HAVE now, Archie, reached that portion of my memoirs which will more particularly embrace
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matters treated of in other histories; and it would doubtless be easy for me to fill up many of these remaining sheets in transcribing what other witnesses have placed on record, or compilers have put together. But by so doing I should mani-

festly depart from my intention of presenting you with a personal narrative. Avoiding, then, the more beaten track of history, to which, however, we may return from time to time as occasion requires; even as you and I, Archie, in our country excursions, may have chosen certain pleasant roadside meadows for our feet, rather than the hard and stony road; or as, also, we may have taken short and convenient cuts from one point to another, where the road was winding or otherwise discursive, and thus attained the double purpose of avoiding a weary and uninteresting march, and of exploring many rarely frequented nooks; availing ourselves thus, I say, both of the by-paths of memory, and the beaten track of history, I shall proceed with these memoirs until the end be reached.

"I would fain know," said Mr. Dalzell, when, with much toil and perseverance, we had penetrated through the amazing throng, in which neither Maazulla, as a Mahomedan fakir, nor Mr. Dalzell and myself, as Feringhis, were treated with much respect or deference, "I would fain know, Maazulla, if this meeting be accidental; or is it, as I suppose, that you have evil tidings to deliver?"

"Sahib, let not the disfavour of the message be visited on the messenger. Your poor moonshee has letters from the Sahib log;" and Maazulla drew from his bosom a packet, which with profound reverence he placed in Mr. Dalzell's hands.

"I will read the letters presently; we may be interrupted or observed here. Let us bend our steps to yonder burying-ground." And, as Mr. Dalzell spoke, he led the way towards a distant inclosure, where, beneath magnificent and ponderous marble mausoleums, rested the ashes of past generations of Mahomedan conquerors. Meanwhile he spoke again.

Mr. Dalzell. I am answered, Maazulla, so far that I perceive you are a messenger, and a messenger of evil. What is the evil?

Maazulla. The Subahdar,* even Aliverdi Khan, hath been taken to his fathers.

Mr. Dalzell. There is nothing surprising in that, Maazulla, though it is much to be lamented; Aliverdi was old. What next?

Maazulla. The young man, Chiragee-al-Dowlah—otherwise Surajah Dowlah, reigns in his stead.

Mr. Dalzell. This also is but what might be premised. There is yet more to come?

Maazulla. It is even so, Sahib; the young Subahdar is wroth with the English, and many threatening messages are said to have been received by the Sahib log.

Mr. Dalzell. Ha! and wherefore, I pray you, Maazulla?

Maazulla. It has not been permitted to the poor moonshee too particularly to inquire. The Sahib's letters—

Mr. Dalzell (impatently). The Sahib will read his letters in good time. Meanwhile, Ma-

azulla has eyes, ears, and tongue; he has seen and heard; let him speak.

Maazulla. To hear is to obey. Sahib, it has been reported to Surajah Dowlah that the English have given refuge to a subject who has incurred his high displeasure, or rather, as Surajah Dowlah affirms, to one who is a traitor against his government. Him hath the Subahdar required to be delivered up, and the Sahib log have refused to obey.

Mr. Dalzell. A heavy offence, if it be so. Yet, methinks, the charge of treason should first be proved. The English factories have been refuges for the unfortunate ere now; and we are not wont to give up our guests without cause shown. Why, even Surajah Dowlah himself, great as he is, may yet be glad to take shelter under the low bush at Calcutta. But what does Maazulla say? Is there such a refugee?

Maazulla. Doubtless the Sahib's letters will tell that which is widely known, that a great man, with many servants, and much luggage, and no small treasure, as is supposed, did arrive at the Factory not long since, and that the Sahib log have refused to dismiss him.*

Mr. Dalzell. It may be so; yet may there be no cause of deep offence. If the man be a criminal, doubtless he will be delivered up to the nabob's justice; but hospitality forbids that a host should give up an innocent man to an enemy's vengeance.

Maazulla. The Sahib has truth and right; and false coward would he be who should betray even an uninvited guest: nevertheless, Surajah Dowlah is thereupon gathering together his forces, and no man can say how the matter will end. But for this fakir disguise, the Sahib's faithful servant would have found it hard to escape the vigilance of the nabob's spies.

While this conversation was going on, and Maazulla was further explaining the critical position of the English at Calcutta, and how he had been despatched by Mr. Dalzell's friend, Holwell, to warn him of the impending danger; how, also, he had managed to escape vigilance and suspicion while passing through the nabob's dominions; and how, in an almost incredibly short space of time, he had traversed more than eight hundred miles of distance, so as to outstrip the tidings of Aliverdi's

* As Mr. Dore does not, in his after narrative, speak further of this refugee, we subjoin the following brief account of this cause of offence.

"The subordinate government of Decca had been administered by an uncle of Surajah Dowlah, who had died a short time before Aliverdi Khan. His dewan, or treasurer, not deeming his family or his property safe in Decca, sent them away, under the care of his son, named Kishindoss (or Kissendass), who solicited and found a temporary refuge in Calcutta. This gave offence to Surajah Dowlah, who endeavoured, but without effect, to persuade Aliverdi Khan that the English were actuated by hostile feelings towards him. The death of Aliverdi, leaving him (the young Subahdar) to pursue his own course, he addressed a letter to the President of Calcutta, requiring that Kishindoss should be given up; but this letter was forwarded in a manner so extraordinary as to warrant suspicion of its authenticity. The bearer, disguised as a pedlar, came in a small boat, and, on landing, proceeded to the house of a native, named Omichund, by whom he was introduced to the British authorities. * * * The British council appear, on this account, to have viewed the alleged communication from Surajah Dowlah with increased distrust, as a contrivance of Omichund to give himself importance; and the messenger was accordingly dismissed without an answer."—*Captain Rafter, "Our Indian Army."*

* The title "Subahdar," while applied to native officers bearing the same rank as an English captain, has been also used to denote a military ruler, governor, or sub-sovereign, who was pre-eminently called The Subahdar.

death; and how, lastly, he had fortunately learned from a brother fakir, whom he had encountered many miles away, that the Feringhi ambassador, who had been staying so long at the court of Aulungeer, was then on the road to Agra; I say, while all these topics, which it is unnecessary for me to dwell upon, occupied the time taken to arrive at the burying-ground, my anxiety and impatience, as you may imagine, Archie, were wrought up to a pitch of supreme irritability. Again and again the name of Zillah rose to my lips and found no utterance, while in my heart I wondered and fretted at the cool composure with which my aged friend could listen to these details. Apparently, after his first question respecting his grand-daughter had been so readily and satisfactorily answered by Maazulla, he had forgotten Zillah's existence.

CHAPTER XLII.

AGRA.—A CONFERENCE IN THE BURYING-PLACE.

THE burying-ground towards which we had been hastening, in hope of more perfect privacy, and which we presently reached, was in a state of neglect. The tombs were blackened by age, and many of them were greatly dilapidated. We were admitted by an old Mahomedan, who had probably, at some former time, been employed as gardener to the spacious ground; and some vestiges of taste were yet visible in the walks and plantations, though many summers must have passed away since the last touch was given, and the work abandoned. With a trembling, palsied hand the old man unlocked the gate, and bowed low when he eagerly received the gratuity slipped into it by Mr. Dalzell. He bowed still lower to the fictitious fakir, while his looks indicated surprise at finding a devotee of his faith so strangely assorted with infidel Feringhis. The sight and touch of substantial rupees, however, quieted whatever scruples he might otherwise have felt, and we entered the burying-ground.

There was perfect solitude around us, and, seating himself on the broken fragment of a tomb, Mr. Dalzell broke open the packet.

Think, Archie, how eagerly I watched his eye as he glanced at the superscription of the three or four letters that packet contained; and how my heart sunk within me when Mr. Dalzell hastily exclaimed:

"How is this, Maazulla, that there is nothing from Zillah?"

He had had to depart hastily and secretly from Fort William, as well as in disguise, Maazulla explained, which probably accounted for the omission, though, indeed, he knew not the contents of the packet.

"It is reasonable enough," murmured my patron; "and we must be satisfied, my poor Hector, that our little bird has not pined in our absence. Cheer up, Hector—poor knight of the sorrowful countenance; Zillah shall make honourable amends for this unintended neglect when we meet. And now let us see what these wise men of Gotham have to say:" and he broke the seal of a bulky despatch.

I suppose, Archie, that my "tell-tale countenance," as my old friend had often called it, betrayed the agitation of my mind, as a multitude

of vague suspicions and fears rushed in thereupon like a flood; the more so that I had detected, or fancied I had detected, a meaning glance in Maazulla's eye, directed towards me alone, and which a lover's quick apprehension had interpreted to mean: "I have a message for you, Sahibzādā, which may not be spoken aloud."

But I was called off from my own thoughts by an exclamation from Mr. Dalzell: "The block-heads! as though there were not danger enough, but they must needs make it greater by divided counsels. Read, Hector, read:" and he thrust the document into my hand, while he opened another letter.

I did read; and the intelligence the despatch contained was of a character sufficient to excite grave concern if not positive alarm. The death of Aliverdi, and the accession of the vicious youth, Surajah Dowlah, had evidently severed, for the time at least, every bond of amity between the Mahomedan court at Moorshedabad and the British merchants. Frivolous and vexatious complaints, and insolent threatenings on the part of the young ruler, had been met by explanations and concessions on the side of the authorities at Calcutta, who had reason enough for wishing to avoid collision with a jealous and powerful adversary. But explanations and concessions had alike been unheeded; the young nabob* continued to rave with insane fury against the peaceful traders, and was following up his denunciations and threats by overt acts of aggression. It was to be feared, the writer went on, that the small English Factory at Cossimbazar would be the first point of attack; and that, when this had fallen—as fall it must—into his hands, he would march his army to Calcutta.

Mr. Dalzell's correspondent went on to describe the means of defence which had been adopted, which were manifestly inadequate to the occasion; and spoke gloomily of a want of unanimity in the council, as well as the evident pusillanimity of "more than one craven who shall be nameless." I remembered this expression afterwards, Archie; and, when the event proved the justice of his censure, I was at no loss to understand to whom the term "craven" was intended to apply.

To add to the perplexity which prevailed at Calcutta, the writer spoke of rumours that war with France had been, or would shortly inevitably be, declared by Great Britain, in Europe; and that, as a natural sequence, the Factories of the rival nations in the East would take up the quarrel, and set themselves together by the ears. In consequence of this, the fortifications of Calcutta had undergone some repairs and extensions, even before the death of Aliverdi; and this had, it seemed, been one of Surajah Dowlah's causes of complaint, who would listen to no explanations, but, pretending to believe that these warlike demonstrations were treasonable acts against his authority, arrogantly commanded the works to be cast down and destroyed by the hands that had raised them.

Still farther to complicate the difficulties which pressed so heavily on the bewildered council at Fort William and its weak garrison, there was

* The natives pronounce this word *nawab*, from whence comes the English corruption *nabob*.

strong suspicion of treachery on the part of the rich native merchant Omichund, who, while showing a fair countenance towards those by whose assistance he had accumulated such enormous wealth, was known to have received and sheltered the spies of Surajah Dowlah, and was believed to be not only making terms with the tyrant for his own safety, but to have stirred up his wrath and kept it warm against the British merchants.*

The gloomy and foreboding epistle closed with an urgent entreaty that Mr. Dalzell would hasten with all speed—laying aside minor considerations—to add his voice to the more energetic portion of the council, and to encourage his colleagues by his presence and advice, if perchance it should not then be too late. Something also was added about the protection required by one whom the writer knew to be dearer to his friend than his own life—meaning Zillah, of course, though the name was not mentioned.

"There seems to be some work prepared for us, Hector," said Mr. Dalzell, coolly enough, when I returned the despatch: "and here we have been wasting day after day, to pleasure those foolish fellows of ours, when every hour is of incalculable value. Well, what are we to do?"

I could not pretend to say, I began; when my friend interrupted me, with—

"Nonsense, Hector: just forget, if you please, that you ever were a blockhead. That is a worn-out notion now, since you have proved yourself to have as much sense as generally falls to the share of any individual Dare. Besides, this is a council of war, in which the youngest officer has the first voice, you know. So now I ask again, What are we to do?"

I could see nothing better to do, I said, than to collect our servants as soon as possible, and induce them, either by threats or promises, to relinquish the remaining days of the festival, and to push onward with double despatch towards Calcutta.

"And suppose, as is possible, that neither force nor persuasion will avail with them?"

"In that case, sir, we must manage to do without them—"

"And be our own mahouts, gora-wallahs, bheesties, coolies, and so forth, for eight hundred miles or more. This is hardly feasible, Hector; for, willing as you and I might be to turn our hands to bullock-driving, elephant-guiding, grooming,

and grass-cutting, among other accomplishments, I doubt very much our ability to perform these offices; and our guards are good for nothing but guards."

"True, sir; in that case, as speed is an object, I would leave elephants, bullocks, and baggage to their fate; saddle our own horses, and mount them—"

"And set off on a steeple-chase of eight hundred miles!" interjected Mr. Dalzell, with a slight touch of sarcasm. "Well, we shall see. Meanwhile, let us pass on. What does Maazulla advise?"

Maazulla. To hear—

Mr. Dalzell (*impatiently*). Of course, of course: pray omit that preliminary flourish, good moonshee. Time presses.

Maazulla. Pardon, Sahib. Elephants, bullocks, luggage, servants, and guards must doubtless be abandoned, if the Sahib would reach Calcutta in safety.

Mr. Dalzell. And why, I pray you, Maazulla?

Maazulla. The reason is plain. First, the whole province of Bengal is already swarming with troops and emissaries of Surajah Dowlah, whose devices may Allah confound! and the Sahib will inevitably fall into their hands; and if he sustains no further damage, his intended speed to Calcutta will be slackened; for assuredly—

Mr. Dalzell (*cutting Maazulla short*). Assuredly, good moonshee, you would shun danger, I perceive. But if there be peril, thou needst not share it with us.

Maazulla (*composedly*). Sahib, if the poor moonshee had been careful to shun danger, he would not have been here this day; but, doubtless, the Sahib knows best.

Mr. Dalzell. The Sahib does not know best, Maazulla bahadour; and the Sahib asks Maazulla to forgive his hasty words. I meant not to offend. But, moonshee, if there be danger such as you speak of, our guards are numerous and faithful.

Maazulla. Faithful to whom, Sahib? To him whose soul—may it be in Paradise!—to Aliverdi Khan, who *was* their master? or to the Sahib, whose salt they have eaten, truly, but who is *not* their master? or to Surajah Dowlah, whose soldiers they now are? Let not the Sahib deceive himself. Many days will not pass before tidings of Aliverdi's death will be spread far and wide; and as far and wide will it be spread that Surajah Dowlah and the Sahib log are at feud. The chapaties were passing from hand to hand as I came through the province. See!

As Maazulla spoke, he drew from beneath his ragged vest a flat cake, apparently of barley-meal, very much resembling in appearance the oatengriddle or girdle-cakes which I have since seen, Archie, in our northern counties, and in Scotland. This he handed to Mr. Dalzell.*

Mr. Dalzell (*contemplating the mysterious cake*). I see the symbol, Maazulla; but I cannot read its hidden meaning.

Maazulla. Sahib, the poor moonshee may not speak more plainly than this—that captivity to every Feringhi Kafir found in the dominions of Surajah Dowlah is thereby betokened. Allah

* NOTE BY MR. DARE. I fear there can be no doubt of this, though eventually the double-dealing—if it were such—brought only disappointment and ruin to the Hindoo merchant himself. Certainly, Omichund did not at this time bear much good-will towards the English merchants, great benefactors as they had been to him; for his rapacity and avarice had been checked, as you will find in the following passage in my contemporary's history of that period:—"The Presidency had long permitted Omichund to provide much more of the Company's investment than the share allowed to any other contractor; by which, and other indulgences, he was become the most opulent inhabitant in the colony."*** This pre-eminence, however, did not fail to render him the object of much envy. The manufactures provided for the Company, having every year decreased in quality and increased in price, much of this detriment was imputed to the avarice and iniquity of Omichund; and the Company, determining if possible to restore their investment to the former condition of price and quality, relinquished their usual method of contracting with merchants, and sent gomastahs, or factors in their own pay, to provide the investment at the different aurrangs, or cloth markets, in the province. From this time Omichund was excluded from any participation in the Company's affairs, which, diminishing his commercial advantages, vexed his avarice."

* For an elucidation of this mystery of *chapaties*, the reader is referred to an article in the "Leisure Hour," the present volume, page 23 et seq.

Kereem! Had it not been that this symbol fell into the hands of the false fakir, the Sahib's faithful moonshee, both Sahib and Sahibzâdâ would ere now have been prisoners in the hands of their own guards.

Mr. Dalzell (resolutely). I care not. I will do my duty. But (*checking himself*) what course does Maazulla advise?

Maazulla. Can the Sahib trust himself to his poor moonshee?

Mr. Dalzell. With none more willingly, if need were.

Maazulla. Will the Sahib walk by his poor moonshee's counsel?

Mr. Dalzell (gravely). I must know, first of all, what that counsel is, Maazulla. To speak plainly, the Sahib has another counsellor whom he must also consult, namely, his own judgment and experience. But speak, good moonshee. Our Scriptures say that in the multitude of counsellors there is safety. It may be that my counsellors will agree.

Maazulla. The words are the words of the wise Solomon. Maazulla will speak. Let the Sahib log return to their encampment; at midnight let each mount his fleetest horse; make some reason to the guards for the proceeding. They will be easily content, for the English Sahibs are a strange people. Let the Sahib say, for instance, that he would see Agra by moonlight; the moon will be high at that time, as the Sahib knows. Then let the Sahib and the Sahibzâdâ hasten hither. Here shall they find their faithful servant, who will be their guide; and Maazulla will promise—if they still give heed to his counsel—to conduct them safely to Calcutta.

Mr. Dalzell. A notable device, Maazulla, but to which I see three grave objections in the outset. For, say that we are mounted on our fleetest horses, what will that avail when our guide is a poor foot-sore fakir? Say also, that for the eighth part or the fourth part of the distance we should trundle along merrily, our fleet horses have muscles to be strained; in plain words, they would break down long before our destination could be reached. And lastly, say that this difficulty were overcome, we should needs fall in with some of the troops and strolling emissaries of whom you tell, Maazulla; and then I doubt if your reverential disguise would protect your Feringhi companions from the fate you otherwise predict for them.

Maazulla (slightly smiling, as in conscious superiority of resources). Sahib, all this is thought of. The fakir's rags may cover a heavy girdle. The fakir himself may, on occasion, ride as well as the subahdar. There are more horses than three in the black country;* and there are other disguises than that which the Sahib's poor moonshee now wears.

Mr. Dalzell. I see your meaning, Maazulla. You came hither mounted; you have provided relays of horses on the track you came; and you would have us discolour our skins, and put on native costume.

Maazulla nodded assent.

Mr. Dalzell. I will deal honestly with you,

Maazulla. Your scheme is good; that is, it might succeed; but yet it is naught. For, say that my objections are thus far met, two others remain, and they are insurmountable. And, first, inasmuch as your scheme implies a falsehood, whereby to escape the vigilance or avert the suspicions of our guards, be it known to you that, for my own part, I hold my life of so little value, that to save it—to say nothing of liberty—I would not utter a lie. And next, as it also implies an abandonment of a post I have voluntarily undertaken—I care not who knows it—I will return whence I came out, as I came out, unless diverted or driven therefrom by force which I cannot resist. And if evil befall me, let the shame rest with the faithless. Have I not Aliverdi Khan's sign-manual for my safe conduct in going out and in coming in? Have you aught else to urge, Maazulla?

Maazulla shook his head negatively and dejectedly.

Mr. Dalzell. It is my turn, then, to propose—

It needs not, Archie, that I should tax my memory to repeat the remainder of this conversation, since—as is the case in most councils of war—the will of the commander was carried out, with some few modifications. What this will was I must recount in another sheet; this being even overfull.

THE BOY BOTANIST.

THE youth of the capital, and, in a less degree, of all large cities and overgrown towns, have but an indefinite notion of the kind of pleasures which engage the attention and supply a never-failing source of healthy excitement to the boys and lads of the country-side, who, on their part, are just as ignorant of the recreations of the town. We were brought up in the country, in the bosom of a green valley, traversed by a winding stream, unvisited by keel or sail, and unpolluted by dye-works or factory chimneys. Until we began to number our teens, we knew nothing of city life, or the ways of the world beyond the little town which clustered round the grey square tower, rising on the crest of the hill, which gave a name to the place of our birth. When events moved us on a sudden to the metropolis, to commence the struggle for existence, we had everything to learn, and reaped our full share of derision and rebuke for ignorance of the commonest things—which were yet not common to us—and, as long as that ignorance lasted, had to pay the penalty of not being as wise as our neighbours. Yet the fact is, that, had we been fairly put to the test, we might have shown an amount of knowledge at least equal, though of a different kind and value, to that possessed by the urchins of the capital. One species of knowledge, common to the young dweller in the country, we are going to treat of in the present paper, and we have chosen to call it by the name of Boy Botany.

It is often objected against the study of the science of botany, that in the immense majority of cases it leads to no practical results; and it is said that this is the reason why it is studied so little. That objection, be it understood, by no means applies to the subject of Boy Botany, which deals in practical results *ab initio*—begins with the grati-

* By "the black country" we presume Maazulla meant Hindostan.

fication of the senses or the appetites, and ends there. The boy botanist knows nothing of calyx, pistil, or stamen, of the learned and scientific terminations, or things of that sort, nor does he care for them either. What he does know is, where anything or everything pleasant to smell, good to eat, or profitable to use is to be had for the plucking, the climbing, or the digging—and all “free, gratis, for nothing.”

Let us follow the boy botanist in his rambles through the country-side, just for a season or so, and see what this knowledge helps him to; and whether it is not as wholesome, on the whole, and as advantageous as what his more pretentious brethren within the sound of Bow-bells manage to pick up in the streets of the metropolis.

The snow yet lies on the meadows, and streaks the green slopes of the uplands; but the severity of the frost has abated, and the sun of waning January sheds a genial gleam over the leafless landscape. Little Dick knows a cove that slants towards the south, and off he goes and plunges into it, up to his knees, in the withered leaves of last summer; and with considerable more fuss than the occasion demands, he kicks and tosses them about right and left, watching, lynx-eyed the while, for the first pale primrose of the year. There are but very few of them to be got, but so much the greater the glory of getting them; and the first there are Dick gets, and scampers off with them to his mother, whose loving face lights up with a smile at the sight of them.

When the snow is gone, and the new grass begins to sprout, Dick inaugurates a cruise for the violets. He doesn't sit down to a piano and squall, “I know a bank whereon the nodding violet blows,” without really knowing anything of the sort. He *does* know a bank, only he says nothing as to its whereabouts; but he starts off at dawn some dewy morning, and gathers the first violets, and brings them home to adorn the mantel-piece, and there they are, smelling sweetly at breakfast time, and proclaiming to the whole household his industry and sagacity.

When spring is fairly come, and the warm weather sets in, Dick has an eye to the cowslips, and he goes to work on them at a wholesale rate. First, he cuts a couple of hazel-wands, a good inch thick, and splits them down from the top to within a few inches of the bottom. Each being four feet in length, will hold twenty pounds of cowslips, picked in handfuls; and the handfuls are laid one upon another, right and left, within the cleft of the stick. Forty pounds is a good day's picking, and as much as Master Dick can comfortably carry. When the sticks are full, and the gaping ends tied up, he shoulders his burdens and marches home with them. Mother sets all the children to work, picking out the pips into cups and basins, to make cowslip wine; and a delightfully fragrant operation it is, and a delightful dissonance of juvenile tongues accompanies it. Then, when the pips are in the pot, the poor blind flowers are strung upon lengths of twine, and tied up in “tisty-tosties,” to serve till they are withered, and long afterwards, for balls and playthings for the children. As for Dick, he is not content with a blind tosty, but makes one as big as his head, of the finest full-blown flowers, for his special delectation.

Together with the cowslips come the May blossoms, and what Dick, who is only a boy botanist, calls the “pussy-cats.” He cares but little for these things himself, but he pulls a good store of them, notwithstanding, for the amusement of his little brother and sisters, who are pleased and delighted to sit in a bower of Dick's making.

Towards Whitsuntide Dick has a notion that he would like a dish of asparagus. He knows nothing, perhaps, of the cultivated sort, but he knows the wild plant well enough, and where to find it. On the skirt of the wood, fronting the west, where the wych elms and young oaks and birches straggle out of the forest limits, and overshadow the bordering steep—there, among the high grasses, he finds the grey-green tops of the wild asparagus, and can gather in half an hour enough for a family dish. They are capital for supper, after ten minutes' boiling, and quite a delicacy, eaten with a little butter and pepper. Dick will look after them so long as they are young and tender, which is only for about three or four weeks, during which time, however, the family have the full benefit of them. Not long after that, the ground ivy appears in tolerable crop along the hedge-rows of certain unfrequented lanes. Dick will have a sack, at least, of that; for mother will make a soothing diet drink from an infusion of the dried leaves, if any of the household should happen to be out of sorts; and grandad will mix them with his bird's-eye, and smoke them in his pipe, as he sits in the long evenings in the glowing light of summer sunset, or by the winter's fire.

These long summer days Dick is up in the morning early, and out foraging for his young brood of rabbits. He cannot afford to let the bunnies eat up all his small pocket-money, and has no notion of rearing them on oats, at a cost of five shillings a-head, and selling them afterwards to the poulterer at sevenpence a-piece, as town boys are apt to do. So he is off at dawn with his bag, and out in the lanes, where the milk-thistle, the sow-thistle, the dandelion, the wild parsley, and a whole tribe of succulent plants are to be had for the gathering. What oats the creatures get, he has saved for them from last year's gleanings; and his sole outlay is for a little bran and gurgeons, to vary the green diet. In this way Dick's rabbits are not only a source of interest and amusement, but a gain to him, instead of a loss.

Dick's finances are in a very modest condition, but his outlay is in proportion, and he is independent of the shops, to a degree of which the city boy has not the remotest idea. With a far wider range of amusements, he is subject to little or no expense in carrying them out. When he flies a kite, he makes it himself, and has only to buy the string; when he goes a fishing, he makes his rod from the hazel or the willow, and his line from the horse's tail, and buys only the hook; and then, unlike the cockney sportsman, he really catches fish—trouts by the dozen, of a pound weight each, and silver eels as long as his arm—not the microscopic minnows and gudgeons of the New River and Grand Junction Canal. If he plays at rounders or trap, his bat is a stout cudgel of hazel or ash, and his ball is also a botanical specimen, being carved by himself from the hard woody fungus that grows in the fork of the decaying elm, and

which is light as a cork, yet elastic as caoutchouc, and which he drives aloft to a height that would make a Londoner stare.

If Dick wants a popgun, he never dreams of buying it at the toy shop—not he. He applies to the elder tree; cuts a short branch as thick as his wrist; saws off a straight, even portion of it between the joints; barks and polishes it; burns out the pith with a red-hot wire; carves a rammer, with a handle to it, from a piece of ash, and thus completes his gun. It is a rather formidable weapon, when done, and is regarded with a jealous eye by Dick's mother; for it will send a pellet of tow a hundred feet high, and is apt to prove a friend to the glazier before its career is ended. Or, instead of the elder branch, Dick will content himself with a goose-quill, making the slender rammer of deal, and using for pellets a raw potato, cut into slices an eighth of an inch thick.

Does little brother Tommy want a toy? Dick does not go to buy one, but he bores two holes clean through the biggest nut he can find; drills another hole at the small end of it; sucks out the kernel; suspends a smooth shaft through the central holes; winds a thread round that part of the shaft contained in the nut; sticks a potato on the lower end of it, and there is a potato-mill, at which brother Tommy may grind all day long, if he likes, and which will last a good deal longer than any toy you are likely to get for sixpence.

Then look at Dick, out with his companions for a day's holiday. A hunch of bread, with a modicum of cheese, is all the provision he makes for the whole day's need, even though the day be sixteen hours long, and not one of his comrades has anything more. There is no house of refreshment on their route, and if there were, there is no money to pay with; but there are the stores that Nature yields for nothing, and which are palatable to a boy's appetite, sharpened by free air and exercise. A handful of sorrel does well enough for a salad, to supplement the bread and cheese; and then, for the dessert, there is a variety large enough to afford something at almost every season. If the hazel-nuts are ripe, the woods yield a banquet plentiful enough to satisfy and sate the most vigorous appetite, with at least a half-bushel bagful per boy to spare and lug home for family cracking. A grand saturnalia is the nutting harvest, while the jovial reapers, spreading in all directions, make the wood vocal with their shouts, as the cries of "eight!" "six!" "five!" "seven!" given with full force of lung, announce the value of the individual milk-white clusters which each is in the act of seizing.

But if the hazel-nuts are not ripe, the earth-nuts are, and Dick knows where to find them, and, as a consequence of this knowledge, will feast deliciously where a town boy would pine with hunger.

In the same locality with the underground nuts Master Dick is likely enough to meet with the wild strawberries. If there is but a sprinkling of them to be got, he will eat them at once out of hand; but should he chance to come upon a bountiful crop that would cut a figure in a dish, he will preserve them for home consumption, because he prefers the reputation of a successful forager to the gratification of his sweet tooth—unless he should happen to be *very* sharp set.

But the earth-nut is rather scarce, and so is the strawberry, and not always in season: never mind—Dick can stay his hunger well enough without them. There are the "hips and haws," the red fruit of the May-blossom, and that larger fruit of the hedge-row, in which the sweet and the sour are delightfully mingled in a kind of vegetable acidulated drop. Then there is the beech-mast, which in the fall of the year is so plentiful, and really is almost as great a luxury as a dessert of filberts. In addition to these there are the blackberries—the daw-berries, large, purple, and juicy, compared to which blackberries are of small account—and there are the sweet scarlet yew-berries, tender as a rose-blossom and luscious as honey. Moreover there are crab-apples in myriads along the hedges, and thousands of the coal-black sloes, clad in bloom of frosted purple. If these last-named luxuries set Dick's teeth on edge, which it must be confessed they are rather apt to do, he has recourse to the fruit of the purple-flowering mallow, which he calls "cheese," and which relieves him from the unpleasant feeling almost as effectually as would a slice of the best Cheshire.

Of course Master Dick keeps a good look-out on his rambles for the mushrooms. These he is not given to eat raw, except on rare occasions when he is extra hungry, and their fragrance tempts him to a bite: he prefers taking them home to mother, who readily converts them into a savoury dish, nourishing and light of digestion.

There is another thing that Dick looks after—a thing that not one town boy in a thousand knows anything about, or even heard of in his life. How many among our boy readers can tell us what dog-wood is? Dog-wood is a rather rare and singular-looking plant or small tree. It is too modest to grow by itself (at least we never found it standing alone anywhere), and prefers to hide itself in a thicket of close-growing thorns or in a quickset hedge. It is, properly speaking, a tree, but a miniature one; and though ramifying much like a large elm, in the same sturdy, angular mode, it rarely boasts a branch, or even a trunk, much more than an inch in diameter. During spring and summer the bark is comparatively smooth, and if cut then the wood is of little service; but the dog-wood tree has the faculty of parting with its sap at the fall of the leaf, and becoming suddenly and perfectly dry. So dry, indeed, does it become, that as winter approaches the bark shrivels up in wrinkles, and the little trunk and branches put on the rough appearance of a time-worn oak, centuries old. In this state the wood is valuable, and is in request among watchmakers, who use it for the purpose of cleaning the works of watches. Being close in fibre as the finest box-wood, being soft almost as cedar, and being perfectly dry as well as tough and elastic, it may be sharpened to a fine point and worked into the screw and pivot-holes of the smallest works, and withdrawn after wiping up the dust and soil they contain, without leaving behind any of its own substance, or the slightest degree of moisture, which would create rust. Dick knows well enough the use made of the wood, and therefore notes where the dog-wood grows; and when the right season comes to fell the miniature logs, he cuts them into convenient lengths, and marches off with them to the watch-



A CHINESE PEEP-SHOW.

maker's, who has no objection to disburse an occasional shilling for as much as he stands in need of.

Another sort of wood which Dick collects—not for profit, but for fun—is the touch-wood found in the decaying trunks of old pollard willows. In the summer and early autumn this wood is strongly phosphorescent, and shines in the dark like a mass of bluish flame. It will retain this luminous quality for days and weeks, during which it is made to take a part in the nocturnal amusements of the family circle.

Such are a few of the small scraps of knowledge which the boy botanist, ignorant of science, but well enough versed in the utilities of his narrow round in daily life, picks up on the country-side. Let our juvenile friends of city and town measure such acquisitions as these against their own, before they strike a balance against him and taunt him as a Goth and an ignoramus.

AMUSEMENTS OF THE CHINESE.

THE amusements and recreations of a people are not a bad test of their intellectual progress, and mental as well as moral status. Judged by this test, the Chinese, in spite of their vast antiquity, must be ranked as a puerile race; their amusements are in great part identical, or nearly so, with those which, among western nations, are in vogue among children, and almost monopolised by them. The principal exceptions would seem to be their

gymnastics or feats of strength, their conjuring and juggling, and their gambling, to which, according to the testimony of the Rev. C. Gutzlaff, the well-known Chinese missionary, the entire population, high and low, rich and poor, are addicted, with an intensity amounting almost to infatuation.

The out-door recreations of the people are seen to the most advantage at the commencement of the new year, which is the time for universal feasting and merry-making among all classes. It is in the Vai lo Tching, the Chinese quarter of Peking, at the entry of the street called Lievu li Tchang, famous for its many fabrics of shining stuffs of divers colours—on the open place which serves for a promenade and fair-ground during the first seventeen days of the year—it is there that the dealers in toys, the jugglers, the acrobats, the buffoons, the showmen, and the merry-andrews are to be found.

On that spot the peep-show, shown in the engraving, becomes almost an institution. It is not known, so great is the antiquity of this species of amusement, whether the Europeans borrowed the peep-show from the Chinese, or the Chinese had it from the Europeans; but wherever it is exhibited, either in the West or in the East, it is managed much in the same way. The objects which the spectator looks at are invariably a succession of transparent pictures, and they are made to appear and disappear rapidly by means of cords, to which they are attached.



CHINESE DANCING DOLLS.

The Chinese populace delight in the marvellous, and, wanting neither superstition nor credulity, they are easily impressed and imposed upon. The showman finds it to his interest to cater for this unsophisticated appetite for the wonderful and unaccountable; and hence, among the favourite subjects of his peep-show, we find that portentous prodigy, the huge fouang-hoang, the king of birds, who, whenever he flies abroad, is accompanied by all the feathered tribes of the earth. Then there is the ki-lin, the king of quadrupeds, whose beneficent apparition is the herald of national changes and national prosperity. Next comes the grand dragon, who is lord of every living thing that wears scales. He is escorted by Mahoulou, the red dragon, and also by a formidable dragon in green. Then comes the spectacle of Hang-ty commencing his flight above the clouds, in the presence of a vast multitude of people. All which spectacles, and many more of a similarly well-authenticated kind, are accompanied by a pompous relation of the wonderful exploits of the early ages of the empire. Then the showman is sure to be magniloquent on the subject of the great wall, flanked with towers, which, according to him, were so lofty as to hide their tops in the clouds. He describes it as the world's masterpiece of industry and patience, and exhibits the broad road on its top, wide enough for six horsemen to ride abreast, and paved with massive flags of stone. He tells how the third part of the inhabitants of the empire worked at it for five years; that the stones

were obliged to be so well fitted together, that the architect would have lost his head had it been possible to drive a nail between the joints. He boasts that this mighty bulwark of the empire was guarded by a million soldiers, under the dynasty of the Chinese; and tells how Hoang-ti, after having caused the whole to be erected, burnt all the accounts, records, and writings, in order that his name alone should be remembered in connection with it.

On the other hand, a rival showman will flatter the pride of the Tartar population, by exhibiting pictures of the conquest of China by the Tartars, and the victories of the great Tayt-sou, chief of the new race, and will recount how the traitor, List-Ching, came to besiege Pekin; how the emperor of China killed himself in his palace, having first compelled all his wives, and the empress herself, to do the same. Then he will wind up with a representation of the triumphs of the emperor Cang-hi, whose reign was long and glorious; or of the festivals of the sage and pious Kien-long, which he instituted in honour of the birth-day of his mother.

Another popular amusement is that of the marionettes, or dancing dolls, shown in the above engraving. These are sometimes constructed and managed with much ingenuity, the dolls performing various automatic motions, by means of machinery and springs concealed within them. It is ascertained that this species of exhibition is really of Chinese invention, and that it was borrowed

from them by the Portuguese and Italians, which last-named people improved upon the original invention, and qualified their automata for performances really wonderful and striking. Short and simple dramas are daily enacted in the Chinese streets by these little figures, to the mirth and wonder of the gaping people. The motions of the figures are controlled by strings, in the hands of the exhibitor. In the European performances, both the strings and the exhibitor are concealed from the view of the spectator; but in those of the Chinese there is no attempt at illusion, the machinery and its manager being patent to all lookers-on. An Englishman, above the age of boyhood, would hardly care to waste many minutes upon such a spectacle as is here shown; but in China this amusement is not only welcomed by adults, and particularly by the Chinese ladies, who find in it an agreeable relaxation, but it is also among the number of those recreations reserved for the entertainment of the monarch and his court. Indeed, it would appear that the monarch takes a pride in it; for, according to Mr. Barrow, these automata figured conspicuously among the spectacles got up in the park of the imperial Zhe-Hol, at the time of the reception of the English embassy.

In gymnastics and feats of activity, the Chinese appear to surpass the western races. An American traveller, who lately witnessed some of their feats of this kind, speaks of a pyramid of gymnasts, the base formed by a number of them joining hands in a circle; upon the shoulders of the lower circle stood a second tier, and upon the shoulders of these stood a third. There is nothing very wonderful so far, and so much is often seen in the streets of London; but with the Chinese gymnasts this is but a commencement of the sport. At a given signal, the lower circle begins dancing, accelerating their motions every moment, until the whole are seen whirling round like a top, with incredible and fearful velocity—the circles above dancing and whirling in like manner, and exhibiting all sorts of antics into the bargain, without losing their footing.

The Chinese jugglers or conjurors, though by no means equal to the same tribe in India, yet perform astonishing feats. Among them, as among all eastern nations, there is no lack of snake-charmers, of whom it may be said, find them where you will, that their principal occupation is that of charming the coin from the pockets of the credulous. The vase-player is a performer whose talent is less questionable, seeing that he really works wonders, useless though they be. His exploits consist of a series of unaccountable balancings and manœuvres with a monster vase of porcelain. He hurls it aloft in the air, and, at the moment when it is dashing to the ground, and you look for the fragments, he has caught it on the point of his bare toe, precisely on its centre of gravity, and there it rests, motionless. The next minute it is whirling aloft again, and descends to its quiet resting-place on the point of the performer's elbow, and behind his back. In a word, though the surface of the vase is highly polished all over, he will catch it on any part of his person, and never miss his aim. Nor is that all: he will make the vase roll against gravity, coax-

ing it, so to speak, to climb up his arm, inclined to a considerable angle, and to rest upon his shoulder—a feat, the success of which is due to his skill in suddenly contracting and relaxing the muscles of the limb.

An amusement, immensely popular with the multitude, is that of flying kites, and it is carried to a perfection never to be observed in other countries. The kites are fashioned of various shapes, resembling birds, beasts, fishes, or monsters; and the object of each player is so to manœuvre his kite, by means of the string, as to strike down that of his opponent. Another favourite pastime is that of foot-ball, which is played much as it is among Europeans. One of the most ancient games of the common people is the game called jang. This is played with two wooden toys, in the form of a pair of shoes, one of which is placed on the ground, and its fellow thrown from a distance, the object being to insert one within the other, and he who succeeds in doing so, is the winner.

After all, the national recreation of China is the national vice of gambling. All men gamble, from the highest mandarin to the lowest artisan or vagabond; they will fight anything, from a quail to a cricket, for money; dice and cards are in almost every man's pocket; and, if they have nothing else to play for, they will stake their liberty, rather than forego the pleasure and excitement of the game.

A DINING-HOUSE INTERIOR.

It is evening, and the grey twilight is hovering over the busy streets. The city of London has had its dinner, and having, for the most part, transacted their affairs for the day, its men of business have nearly vanished from the scene—gone in all directions, some to their comfortable villas in the suburbs, north, south, and west, and some by rail to Croydon, Reigate, or uttermost Brighton. The grand army of clerks, dismissed hours ago to enjoy their temporary furlough, have trudged or "bussed" it home to their families; and now there is a comparative solitude in that wide area fronting the Exchange; Cheapside mitigates its myriad march, and Cornhill takes breath, after the moil and tussle which lasted almost from dawn to sundown. Let us turn out of the main route, down this quiet flag-paved court—quiet now, but which a few hours ago echoed with the ceaseless hum of voices and the tread of hurrying feet. Yonder is the dining-house, at whose interior, with the permission of our friend the proprietor, we are going to take a glance. A waiter, after his warm day's work, is standing, aproned, at the door, to catch a mouthful of air, and just a glimpse of a few pale stars struggling forth in the deepening blue of the sky.

"Is Mr. — within?"

Mr. — steps forward at the sound of our voice, with an answering word of welcome.

"A busy day to-day?" we ask.

"Rather—nothing extraordinary; about six hundred dinners, and the usual bar practice."

"You have considerable standing at the bar, I believe?"

"Yes; no sitting allowed. Our benchers don't come to the bar at all, you understand. The bar lunches—the bench dines. Come this way, I will show you where."

Passing the bar, a plain polished slab, flanked by regiments of bottles and decanters and files of glasses of all shapes, we enter the lower dining-room, a capacious chamber, decorated in a style rather solid and substantial than attractively ornate. The tables, of dark mahogany on bronze supporters, are parallelograms, projecting end-ways from the wall, and over them are brass rails and supports for the reception of hats, overcoats, and umbrellas. The benches are nothing less than a series of well-padded easy chairs, constructed on the true accommodation principle of allowing to each diner his fair two and twenty inches, or thereabouts, of sitting-room, on which his neighbours on each side are prevented from encroaching by the stout supports for the elbows, which shut him in. With all this liberal space, the room will hold, and does hold daily, and several times a-day, about a hundred diners at once. Our friend tells us that he takes in few newspapers or literary attractions of any kind. The attraction of his house, on which he relies, is a good dinner at a moderate cost, served on the instant; and he confesses, without hesitation or reserve, that when he has seen a customer's money he is glad to see his back as soon as possible. This is as it should be. Men, whose time is money, whose very minutes are sometimes rateable at a golden value, do not come here to read. They call for their dinners—they dine, as deliberately as they choose; but, having dined, they pay their reckoning and depart. Loungers, gossipers, disputants, news-mongers, and men with nothing to do, do not come here—or if they do, they soon find that the atmosphere of the place does not suit them, and they seek a congenial resort elsewhere.

From the lower room we mount into the upper, noting as we go that the staircase is plated, so to speak, with a thick ribbed coating of leaden mail, which is found to be the only kind of stair-carpet which will stand the everlasting wear and tear of commercial feet. The upper room is furnished in a similar manner to the lower one as to accommodations, but in a superior style of ornament; the walls are divided into panels, in which are groups of flowers brilliantly executed, and a tracery of flowers winds round the painted pillars that divide the panelling. The gaselier is of the last new design, and the padded seats appear to be covered with morocco leather. This room will dine even a larger number than the one below, and with the same individual allowance of space. The dining, our friend tells us, begins at one o'clock, is at flood tide about three, languishes and ebbs at half-past four, and finishes before six, save on rare occasions.

We now follow our friend to the kitchen, which is on the basement floor. It is a large airy apartment, lighted with gas, and fitted up in the regular English style, differing nothing from the ordinary kitchen of a gentleman's house, save in the multiplied appliances for doing the same thing ten times over at one and the same time. Thus, the range is large and deep enough to accommodate half a dozen spits, and the spits are long enough

to contain three or four joints each. Then, for boiling, steaming, grilling, frying, stewing, there are a number of boilers, pans, grills, and circular orifices in what looks like a stone sideboard, underlaid with fires and furnaces—to say nothing of ovens for baking and warming, and the usual culinary etceteras. The cooking being over for the day, the kitchen is clean as a new pin; and the only vestige or symptom of anything eatable at all is a sleepy turtle lying on the stones in one corner, where he slowly blinks his sad eyes as he peeps from under his shell, awaiting his turn for decapitation and evisceration. Our friend has periodical turtle-soup days, well known to the diners on 'Change. One of them comes off on Friday next, and then—good-bye to poor turtle.

From the kitchen we descend into the cellar, lying at considerable depth beneath. There we have an imitation in miniature of the huge wine-vaults in the London docks. There is the same black, dusty drapery of cobwebs pendant from the ceiling, the accumulation, probably, of more than a century; there is the same darkness and vinous odour, and the same moderate temperature. The chief difference is, that instead of interminable perspectives of casks, we have here interminable rows of bottles ranged on shelves, heels outwards, and swathed in the dust of more than one generation. The bottles are in a large variety of shapes—some with long, crane-like necks, others with barely neck enough for the cork; some large enough to hold an imperial quart, and others only professing to contain half-a-pint, and that only the conventional measure. The mass, however, are the familiar wine-bottle; but this is as various in value as the others are in form: there are new wines from the wood, and old and sea-borne wines, which have not moved from the position they occupy since Victoria ascended the throne. Wines, especially wines in bottle, require careful looking after; they must not be exposed to the great heats of summer or the frosts of winter, or they would lose in flavour, and therefore in value. Our friend shows us the contrivance by which he can keep them at a nearly uniform temperature, of about sixty degrees, all the year through. This he does by an ingenious ventilating apparatus, with which he can admit either warm or cold air at pleasure. Looking to the myriads of bottles displayed here, we have an idea that the consumption annually must be no trifle; and as we pass out we note, in an adjoining cellar, that the process of bottling from the pipe is going on, to supply the deficiencies that so regularly occur.

Ascending from the cellar, our friend invites us to look at his larder. This also is no trifle. The larder is in the open air, and is in fact a small inclosed court in the rear of the house, roofed in only in part, like the stalls in Leadenhall market, and very like a miniature market it looks. There is the green-grocer's stall, with every variety of culinary vegetable, to the amount of something like a wagon-load; there is the poulterer's stall, with twenty geese and as many turkeys all of a row, with no stint of fowls and game of all kinds; there is the butcher's stall, with thirty legs of mutton, half as many haunches, huge sirloins, barons, and buttocks of beef, and pork *ad infinitum*; there are hams from Westphalia, bacon

from Wiltshire, and sausages from Norfolk in piles. Then there is the baker's stall, with bread in all shapes, and store of flour for puddings and pies—not to insist upon a whole cargo of preserves and fruits in and out of season, and delicacies of various kinds for the dessert. Who would not like the run of such a larder as that?

We have seen all now, and are ready to take our leave; but our friend does not allow visitors to his cellar to depart without tasting its contents. A bottle of that beeswing port, of some famous vintage whose precise date we forget, has been sent upstairs, and we are expected to take a glass or two.

Pending this welcome refreshment after a rather toilsome day, we put one or two questions to our host.

"What do you do with the broken and refuse viands, which must unavoidably be left on your hands after six hundred people have been dining here, and with the numerous joints, which you cannot denude to the bone in serving your customers?"

"It is all given away," he replies; "a number of poor persons come for it every evening; we have no difficulty in getting rid of it, I assure you. It forms the chief support of several needy families, and they are grateful for it."

We note this as an interesting fact, and cannot help wondering whether the same rule is at all general throughout London. If so, it forms a remarkable contrast to the practice which prevails universally in Paris, where the refuse of the higher class estaminets and restaurants is sold for its full value to those of a lower grade, who in turn sell their refuse to a grade lower still.

"But," we resume, "we saw in your larder a huge tub full of fragments of meat and vegetables. Why was that not fetched away with the rest?"

"That is for to-morrow's soup."

"To-morrow's soup! why, to-morrow is Sunday. You don't open your house on Sunday!"

"No, but I make soup every Sunday morning, or rather it makes itself during the night. You see, this is a little work of charity which I have thought it my duty to look after. There is a wretched district down in Westminster, where the people are starving, body and soul. I used to go and speak to them of a Sunday morning before service time, in the hope of doing them some good, if it might be. But I found it a sad one-sided business, that of speaking of the state of their souls to people whose bodies were starving for want of food. So I hit upon this soup plan. I make some gallons of wholesome stuff, which costs me no great deal beyond the trouble. I have it served up hot to as many as choose to come on the Sunday morning early, and while they are eating it I read a chapter or two in the Bible, and after they have had their breakfast I can talk to them and pray with them a bit, with a little better face and more satisfaction to myself and them too, than I could when they were too hungry to think of anything else. I suspect my plan is vulnerable to objectors, but, notwithstanding that, I think it works well on the whole; at any rate, the hungry are fed."

We, who know by experience that the hungry stomach has the deafest of ears, make no objection

to the plan. We rise and shake hands with our host, and depart, not without a notion that we have made more discoveries in the old dining-house than we had anticipated.

CHANCE DISCOVERIES.

SOME little time ago I had the pleasure of bringing before the notice of the readers of the "Leisure Hour" a list of some stolen secrets appertaining to the manufacturing arts.* Not an unalloyed pleasure either, for, regard the thing as you may, a robbery is a robbery. Mine is a task of unalloyed pleasure now: I sit down to chronicle a few discoveries effected by chance. There is something poetically attractive about chance discoveries—something imaginative, one may say. The records of them constitute a page in the romance of invention, and whenever the poetical element comes in, the recording historian must take especial care that the truthful element does not go out: so, keeping this point well in mind, I shall not hesitate to give to a popular version of a remarkable chance discovery a knock on the head, with remorseless impartiality, if I see good reason for believing that testimony has been trying to get on the blind side of truth.

Firstly, to begin our investigations pretty far back, I do not believe the first idea of the harp was borrowed from a dried-up tortoise shell, with natural fibres of the animal sticking from side to side. I doubt very much whether the secret of Tyrian purple was originally discovered by the circumstance of a little dog having bitten a shell-fish on the sea coast of Tyre, and returning to his master with mouth tinged purple. Shifting the venue into regions nearer home and modern epochs, I place not the slightest reliance on the statement that roast pig was discovered by the accidental conflagration of a pig-stye. Nevertheless, my doubtfulness in these matters is not comparable to that of many people I know. What a pretty tale we boys were told in our boyhood about the accidental discovery of glass—about the Phœnician mariners who, happening to make a fire of dry sea-weeds on a sandy shore, found glass in the ashes. I do not see any reason to place this recital in my list of figments by necessity; it might have been true, or it might not have been true: the result is possible. There seems to me no greater reason for doubting the production of glass, under the circumstances indicated by the tale, than for doubting its production by the burning of a haystack. Now, I myself can vouch to having seen many a lump of glass produced in this manner. The shiny external part of grass stems is flint, or silica; within grass stems there is soda; soda and flint melted together constitute glass, as I take it for granted every person who reads this is already aware: wherefore, starting from these premises, the mystery of glass out of a burned haystack vanishes altogether.

Chance discoveries are far more numerous than the majority of people are apt to suppose; ay, even in mathematical subjects. Most people know what a kaleidoscope is—a compound thing of glass and

* See No. 315.

metal, into which you put stray fragments; then, giving the instrument a twist, you get all sorts of beautiful combinations. Well, modern mathematicians get most of their results by the process which somebody has described as that of grinding x , y , z in a mill, and which I, having the kaleidoscope uppermost in my mind, may assimilate to the operation of putting stray objects into that instrument, and seeing what comes of them.

As for chemistry, in times gone by it was almost entirely dependent on chance discoveries for every step it took in advance of existing limits. Though that science is now less dependent upon chance discoveries for advancement than heretofore, still the turning up of unpremeditated casualties is an event of frequent occurrence. A pretty tale is attached to the discovery of the metal cadmium, and it has the recommendation of being absolutely true. Perhaps these lines may come under the notice of a painter, whether artistic or an amateur. If so, I shall take it for granted that "cadmium yellow" will be no novel word to my reader. Cadmium yellow is a compound of sulphur with the metal cadmium; and the latter is a very beautiful metal, white and brilliant, something in appearance like tin. Now arsenic, when combined with sulphur, is yellow too; but zinc, combined with sulphur, is perfectly white. Bearing these facts in mind, follow me in my narration. In Germany the stores of chemists and druggists are placed under rigid supervision. At stated times a posse of analytical chemists, accompanied by police, goes about hither and thither, on an excursion, to find out whether the materials used as physic are good, bad, or indifferent. The chemical inquisitors, as I may call them, happened some years ago to go into the shop of a respectable German druggist, or rather apothecary, on their accustomed business; and on examining a preparation of the metal zinc, commonly used in medicine, judge their horror when, on converting a portion of the zinc compound into what is called a "sulphide"—that is to say, a combination of the material with sulphur—the result, instead of being white, as it ought, turned out yellow! Wherefore the horror, do you ask? Simply because, to the best of their belief, the yellow tint was indicative of the existence of arsenic in the preparation of zinc. So, acting under this impression, the apothecary's zinc salt was placed under restriction, and his character suffered not a little. The apothecary, however, being of an inquiring turn of mind, forwarded some of the suspected zinc compound to the very celebrated chemist, Professor Stromeyer, who, analyzing it carefully, found not arsenic, but a new metal, now known as cadmium; since which period cadmium has been ordinarily extracted from ores of zinc.

Having thus given a true account of the history of cadmium, adapted, I hope, to the general reader, perhaps I may be permitted, on behalf of young chemical aspirants, to improve the occasion by conveying the following important bit of scientific intelligence. So sure as you meet with a metal which gives a yellow colour, always a yellow colour, and nothing but a yellow colour when combined with sulphur, that metal is either cadmium or arsenic. Tin gives a yellow colour when combined with sulphur under one particular set of cir-

cumstances, and antimony gives an orange-red, sometimes denominated yellow by courtesy. At the most, then, there are only four metals which give sulphides having any pretensions to yellow. This, believe me, is to the young chemist a fact worth remembering, and to those who are neither chemists in *esse* nor in *posse* there is no harm done by this little digression.

The operation of making white sugar loaves is said to have been discovered by accident. Let the reader be informed that all sugar, when first produced and thrown into moulds, is yellow or dark, and the yellowness or darkness is got rid of by a process of modified washing. If the reader will tightly pack some brown sugar into a funnel, I shall be able to convey an idea of the process of washing to which sugar is subjected, and to which the history of our present chance discovery refers. Clearly, no ordinary process of washing will answer the purpose of washing sugar. If we were to pour water upon its surface, the water, instead of removing the coloured matter and leaving the sugar crystals, would melt colouring matter and crystals too: both would disappear. Once upon a time, as testimony avers, a certain hen, accompanied by her family, took a constitutional walk in the fair island of Cuba. They marched into a yard where brown sugar was placed in conical moulds to drain. They jumped upon the surface of the brown sugar and walked across it, depositing at every step a little moist clay which happened to be sticking to their feet. Mark the result: the moist clay giving off water sparingly, purified the sugar without dissolving it. The hint was taken; and to this very day yellow sugar is whitened throughout the island of Cuba by spreading wet clay on its surface. Our home refiners used to purify their sugar-loaves by the same process; they have abandoned it now, in favour of a thick mortar of sugar and water, instead of one of clay and water; but the term claying is retained nevertheless.

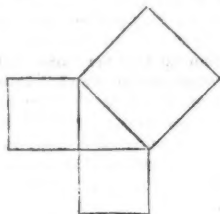
On a previous occasion I explained, in these pages, how the Saxon china clay was discovered by the accident of a certain barber having used it as a hair-powder for Böttiger's wig;* so we may let the event pass with this casual notice here. In order that compensation may be made for my scepticism in the matter of the discovery of Tyrian purple, let me now announce the fact (as I believe it to be a fact), that the celebrated Gobelins red dye was discovered accidentally by Cornelius Drebel. He happened to be engaged filling a thermometer tube with decoction of cochineal, when, spilling a little of the fluid, it chanced to fall into a solution of tin, and thus accidentally generated the fine Gobelins red. Perhaps the reader is already aware how the slide-valve of the steam-engine was discovered; but as perhaps, too, he may not be aware of it, I shall add it to my list. Steam-engines now, when once set going, help themselves to their own steam by a peculiar arrangement of valves. Steam-engines, in their early days, were far less independent. At stated times a boy had to turn a tap on, and at other times off; whence, by this alternation, the supply

* See "Friend Aluminium's Family Circle," *Leisure Hour*, No. 274.

of steam was regulated. Now, once upon a time, as the tale goes, a certain boy waxed lazy, as boys when not looked after are wont to do. He thought he might save himself trouble by establishing a connection between the beam of the steam-engine at one end, and the steam-tap at the other. He succeeded; and the result of his success was the addition of a certain self-acting valve to all future steam-engines.

Of course you know the tale about Archimedes and the discovery of the process of taking specific gravities: how king Hiero, of Syracuse, having given a certain goldsmith a certain weight of gold, told him to make a crown of the gold as per contract: how the artist having made the crown, and king Hiero being a suspicious man, fancied brass was in the crown, but couldn't tell how to discover it: how Archimedes solved the problem one morning whilst bathing, by the discovery that on plunging into the bath, the weight of water which ran over was exactly equal to the weight of his own bulk: how he cried "Eureka!" and, in short, you know the rest.

Apropos of the rejoicing of Archimedes, I cannot help thinking ancient philosophers must have been far more impulsive individuals than our own learned men. Pythagoras, you know, is said to have sacrificed for joy a hundred oxen when he discovered that, in a figure like the following, the large square is exactly equal in size to the two little ones put together. It was a very important



discovery, I grant; but he might have spared the oxen. Quite by chance, I now make the discovery myself, that, were I to go on with the long list of chance discoveries which I see with mental vision crowding to be recorded, the tale would be a tediously long one. So, commending the Pythagorean problem to the favourable consideration of all under whose notice it may come, and to whom it is not familiar, I close my list of chance discoveries.*

RUSSIAN VILLEINAGE.

PART II.

In a preceding paper I pictured to my readers the legal position of the Russian serf, previous to the changes which are just being initiated by the emperor Alexander II. But it does not follow that

* In the above paper, the term "chance discoveries" is used; but "chance" is a word that expresses nothing. The providence of God is clearly to be seen in the fitting of discoveries to particular periods of society. On this subject the reader may appropriately be referred to an excellent little work called "The Theology of Inventions," by the Rev. J. Blakely. Collins, London and Glasgow.

the villain's legal condition is his true one. Ordinances are easily broken; for law in Russia is a dead letter when a bribe confronts it. No official, be he judge or thief-taker, field-marshal or corporal, can resist a bribe, if it be only proportioned to his rank. Hence, if a baron defies or evades the ukase, he has only to pay well, and no one will be a whit the wiser. Thus, it still happens that men and women are sold without the land, just as they used to be of old. Unquestionable instances of such transactions have been mentioned to me, which occurred but lately. If, then, in so fundamental a matter, the law can be contravened, it may with comparative ease be broken in other cases, when interest or passion urges a man, and power facilitates the fulfilment of his purpose. It is only necessary that he use a little caution now-a-days.

Besides the potency of a bribe to screen the criminal, there is no one to defend the serf, and he possesses neither spirit nor knowledge enough to defend himself. He never saw the ukases which refer to him, and he could not read them if he did. I suspect that, so long as no monstrous crime is committed, nor extensive illegalities are practised, the baron may do pretty much as he pleases with his own. It is nobody's business to inquire. Those most concerned cannot speak, those who should, do not; nor is there any free press to look into such matters. Law may be good, and the law-giver well-intentioned, but the moujik knows little of anything but the will of his lord. I believe that there are wrongs daily perpetrated in Russia, especially by the German stewards of the wealthy nobles, which add greatly to the annoyances of the peasant's lot. Nor have the nobles themselves always clean hands. I would not accuse them of being generally merciless tyrants, but I fear that they do little to protect or ameliorate the condition of their dependants; while their stewards are too frequently base fellows, who grow rich by grinding the faces of the poor.

The influence of such a system is most depressing, and, even in the best of hands, cannot fail to lower and keep down the people. They never think for themselves. They have no incitement to make any effort. Industry on their part would chiefly add to the comfort of their masters; while any riches which they might amass would only go to serf children, still profiting the baron, and doing the inheritors no real good. The very provision for old age is an evil; for the serf is thereby led to forget the future, and rest content if he have enough to eat to-day. He makes no advancement; and, so long as matters stand as they now are, he can make none, but must remain a thoughtless trifter, and little better than a mere occupier of so many square inches.

As might be expected, their morals are of the worst kind. "There is no virtue extant" of scarcely any sort. Licentiousness, drunkenness, lying, and dishonesty, are as natural to them as quass and black bread. Nobody can believe a word they say, or trust them any further than he can see them. Religion they have none. Its place is supplied by superstition and childish observances. Mahomedan Turkey is, I am persuaded, at least as religious a place as so-called Christian Russia. And yet, in spite of all these deplorable faults,

they are a good-natured, kindly people, who might be taught better things, did despotism and priestcraft permit.

Incredible as it may seem, they are generally content in this abject condition. Their standard of rights and wrongs, of pleasures and pains, is very different from ours. As to rights, strictly speaking, they never had any; while, being wholly untutored, they are no way afflicted with keen sensibilities. Hence, they do not miss the former, while injuries which would drive us mad, make but little impression on them. Men at a distance sigh over their bondage; an orator rounds a telling period by speaking of slaves and despots; but the moujiks themselves do not care. The poison has long ago proved its own antidote, and generations have elapsed since the flesh grew over the fetter. A cage bird is happy, and sings through its bars as blithely as does the lark who trembles at heaven's gate. The poor thing never sang free in the green wood. And even so is it with the subject of my notice. He was born within the bars, and is quite willing to remain there. His cage is all the world to him. Give him but supplies, as you would any other animal, and he will rather be locked up, unenvious of the crowd without, who gaze at and pity him.

The serfs on the crown estates are best off. They pay less obrok than others, and are, comparatively speaking, well cared for. Education, too, such as it is, is provided for them, although generally they deem it a great bore to be compelled to learn the elements of reading and ciphering.

The possession of serfs is restricted to people of rank. No matter how rich a man may be, he must have rank before he can hold even a solitary villain; so that this is a very precious thing, and one eagerly sought after. It is an estate, wholly apart from and independent of mere nobility, and has no fewer than fourteen grades. In order to procure it, a man, no matter what his birth, wealth, or title, must enter into the public service, civil, military, or naval; and according to the nature and term of his employment, does he attain to one or other of the fourteen steps which divide the free social ladder. Before this, he may have had a hereditary title, but not until he secures such an elevation, does he become noble in the eye of the law. A commission from the emperor, held for a given time, confers the first step of rank, and claim to nobility; and this being, as we have seen, requisite, in order to entitle a man to own serfs, and more or less requisite likewise, to give him a place in society, all who have any pretensions to gentility seek to serve.

A man's wealth is reckoned by the number of people on his estates. He is said to be worth, not so many acres, or roubles, but so many souls. He may have ten, or a thousand, or twenty thousand; but whatever be their number, they constitute his riches. And in strict accordance with this fact, is the style in which properties are advertised. The following, which I cut out of the "Police Gazette" of St. Petersburg, a few years ago, will illustrate my meaning, and their practice. The advertiser intimates that there is "for sale, in the government of Serátoff, a property consisting of 142 souls and 1258 desertines of land. Inquire in the Liteinoy

quarter, in the Officers' Street, Baron Bielsky's house, in the tobacco shop." The reader has seen that the quantity of land is named; this, however, is a legal necessity; "the souls" are, after all, notoriously the property. It must be observed, also, that the souls alluded to, are only the males on the estate. Women do not count in Russia. In this country they are styled "better halves," but in that, they are not officially deemed any sort of half at all. Nobody counts them. Adding, then, an equal number of women to the 142 souls in the advertisement, we have an offer to dispose of 284 human beings to the highest bidder. Such sales take place every day.

We have now glanced at the village of Russia. It is not a very inviting system. Few philanthropists would like it to last long, and it is a matter of congratulation that there are unequivocal signs of its gradual extinction.

THE GIBBET AND THE GENTLEMAN.

WHAT a contrast is Buxton to others of his contemporaries! A banker in Berners Street finds himself in difficulties, and commences a course of fraud and forgery to keep up the credit of the house. At all hazards he will retain his place in society, and have, at least, the outward seeming of a gentleman, though he is pursuing all the time a life of deceit and falsehood, and appropriating the property of others as his own. As might be expected, personal habits are as irregular as the social are criminal. He lives without knowing the blessedness of a home; a husband without the rites of the church; a father without the sanctities of the relation. At length, early on a dark damp November morning, a continual low murmuring sound is heard increasing in the thoroughfares of the city. Before the dark abode of punishment and crime, men are busy erecting the apparatus of death. Yellow flashes from various torches flickering against it, render it dimly visible to the eye, while the hollow sounds of the workman's hammer fall like heavy strokes upon the heart. At length it is day; thousands upon thousands are discovered—the packed filth and refuse of the metropolis—*waiting to see a gentleman hanged!* There he is, beautifully dressed; elegant in figure; his hair, slightly touched by time, moving in the wind; he has all the appearance of being born to move in cultivated society, and to find his equals there. But he is *HERE*. And now, see, *he is left by every individual having the aspect of one of his own class.* He has brought himself to the level of the wretched dregs and offscouring of all things, who seem to hold him as their associate, and to hail him as one identified with themselves. What a terrible price to have to pay for the past! There is nothing in the universe so expensive as sin. Moral courage, true power, principle, religion, would not only have kept the man from sinking into the criminal, but might have raised him higher into usefulness and honour. The banker might have equalled the brewer, if, like him, he had purposed, and worked, and believed, and prayed.—*Sir Thomas Fowell Buxton, a Study for Young Men, by Rev. T. Binney.*

THE THREE SIEVES.—Before we allow ourselves to find fault with any person behind his back, we should ask ourselves three questions:—1. Is it true? 2. Is it kind? 3. Is it necessary?

Varieties.

DESCENDING THE CATARACT OF THE NILE.—Towards evening we left this fabled burial-place of Osiris, and determined to return to Asman by water, descending the cataract. Having taken in a pilot, the boat being carefully trimmed, and "women-kind" desired to sit still and "not make a fuss," we moved off from the shore. We had about twenty-five boatmen; they began to row with vigour—all talking and seeming to give orders—apparently everything was in confusion. As we advanced the men became more noisy, and not only talked, but shouted and screamed: the pilot stood up shouting and screaming louder than any one. All around us were gushing, foaming, and seemingly contending currents, tearing over and under the rocks, against masses of which it appeared as if we must inevitably be dashed; still the boat proceeded smoothly, though with extreme and almost frightful rapidity, and somehow or other we escaped a collision of any kind, till we reached the brink of the fall or rapid, when the stern rose high, and for a moment the bows of the vessel appeared to plunge into the watery abyss. Suddenly the prow emerged almost perpendicularly from the water, of which a good deal had entered the boat, and after two or three more or less violent plunges and struggles were over, the gunwale became level, and we could stand upright without support. The cataract was passed, but the shouting ceased not, and though the pilot called out all was right, and that all danger (if there had been any) had ceased, my excitement continued, for the speed with which we had descended still impelled the boat, and it seemed as if the boatmen had lost all command over it; this, however, was not the case, and the way in which they guided it, and avoided the labyrinth of rocks was marvellous. These soon became fewer, the water calmer, the shouting and howling less; the men brought the boat close to a bank, and all was over. I felt sorry that it was so.—*Lady Falkland's "Chow Chow."*

A SHEREW DECISION OF ALI, CALIPH OF BAGDAD.—In the preliminary dissertation to Richardson's "Arabic Dictionary," 2 vols. 4to, 1806, the following curious anecdote is recorded:—"Two Arabians sat down to dinner; one had five loaves, the other three. A stranger passing by desired permission to eat with them, which they agreed to. The stranger dined, laid down eight pieces of money, and departed. The proprietor of the five loaves took up five pieces, and left three for the other, who objected, and insisted on having one half. The cause came before Ali, who gave the following judgment:—"Let the owner of the five loaves have seven pieces of money, and the owner of the three loaves one; for, if we divide the eight loaves by three, they make twenty-four parts; of which he who laid down the five loaves had fifteen, whilst he who laid down three had only nine; as all fared alike, and eight shares was each man's proportion, the stranger ate seven parts of the first man's property, and only one belonging to the other; the money, in justice, must be divided accordingly."—*Notes and Queries.*

VOCAL MACHINERY OF BIRDS.—It is difficult to account for so small a creature as a bird making a tone as loud as some animal a thousand times its size; but a recent discovery shows that in birds the lungs have several openings, communicating with corresponding air-bags or cells, which fill the whole cavity of the body from the neck downward, and into which the air passes and repasses in the progress of breathing. This is not all. The very bones are hollow, from which air-pipes are conveyed to the most solid parts of the body, even into the quills and feathers. The air being rarefied by the heat of their body, adds to their levity. By forcing the air out of their body, they can dart down from the greatest heights with astonishing velocity. No doubt the same machinery forms the basis of their vocal powers, and at once resolves the mystery into a natural ordering of parts.—*Gardner's Music of Nature.*

HOW TO FIND WATER.—"Well," said Kemp, "when I go into a country where there is not much water, I always take my baboon."—"You don't drink him, do you?"—"No, but I make him show me water."—"How do you do that?"—"In this way: when water gets scarce, I give

the Bavian none; if he does not seem thirsty, I rub a little salt on his tongue; I then take him out with a long string or chain. At first it was difficult to make him understand what was wanted, for he always wished to go back to the wagons. Now, however, he is well-trained. When I get him out some distance, I let him go; he runs along a bit, scratches himself, shows his teeth at me, takes a smell upwind, looks all round, picks up a bit of grass, smells or eats it, stands up for another sniff, canters on, and so on. Wherever the nearest water is, there he is sure to go." This anecdote was corroborated by others present.—*Captain Drayson's "Sporting Scenes among the Kafirs."*

A PICTURE FROM SANTA CRUZ.—When walking at mid-day in one of the basalt-paved streets, each glittering stone sending back the full rays of a vertical sun, and the gleaming houses on either side affording a steady white-hot glare of unmitigated sunshine—what words in a northern language can express the delightful emotions, when at the open gateway of one of the semi-Moorish abodes we looked in upon a grove of bananas? Throwing a tender green shade over the interior court, their grand and delicately-constructed leaves rise up aloft, catch the fierce rays of the sun before they can do mischief; receive them into their substance; make them give out the most varied yellow greens; pass them on from leaf to leaf, subdued and softened; pass them on to the oleander's fountain of rose-pink flowers, to the dark green of the orange, the myrtle and the bay; and leave just light enough at last in the green cavern below, to show the bubbling of some tiny fountain, the welling heart of this fairy oasis. Our fashionable who visit Italy and Spain in winter only, how little do they know of the province of the sun.—*Professor Smyth's "Expedition to Teneriffe."*

PROGRESS OF INDIA.—Besides the remarkable increase of cultivation and population, the cheapening of agricultural produce, and the recovery of the revenue after great deductions, which have been already commemorated, there has been an enormous increase in the external commerce of India. The exports have risen from £7,993,420 in 1834-5 to £23,039,268 in 1855-6, being 188 per cent. The export of cotton amounted in the former year to 98,320,050 lbs., and in the latter to 237,179,940 lbs., being an increase of 141 per cent.; but the quantity exported to England has increased in a much greater ratio, namely, from 38,268,402 lbs. to 170,771,510 lbs., or 346 per cent. The export of rice, chiefly from the east coast of the Bay of Bengal, has so vastly increased that labour can scarcely be found to transport it to the coast; the wages of labourers have risen to an unexampled height, and the agricultural population of large districts are, for the first time in memory, out of debt to money-lenders and to their landlords. During the same period of twenty-one years, the imports into India have risen from £4,261,106 to £13,447,027, or upwards of 227 per cent.; the great excess of exports above imports being regularly liquidated in silver.—*India House Memorandum.*

THE MUSTACHE IN THE ENGLISH PULPIT.—A writer in a London periodical states that nearly all the English clergymen living between two and three hundred years ago, wore the mustache. In his list of those who wore the beard on the upper lip, we find the well-known names of John Donne, George Herbert, Robert Herrick, Jeremy Taylor, Thomas Fuller, and Robert South. The famous John Knox and the celebrated John Bunyan wore the mustache; also Wickliffe, Cardinal Pole, Archbishop Cranmer, Bishops Ridley, Latimer, Jewel, Holbech, Thirley, Goodrich, Skip, Day, Archbishop Laud, and a host of others.

NEWSPAPERS.—There are 3364 newspapers published in the United States and territories, of which 613 are in New York, 419 in Pennsylvania, 382 in Ohio, 221 in Illinois, and 219 in Massachusetts. There are 50 in Canada, 5 in the Sandwich Islands, and 2 in New Brunswick. In England and Wales there are 272; in Scotland, 66; in Ireland, 113; and in the British Isles and Jersey, 17. There are about 1500 in Germany, about 600 in France, 30 or 40 in Spain, very few in Italy, 13 in Constantinople, and about 100 in Russia.